

S/058/61/000/002/003/018
A001/A001

Translation from: Referativnyy zhurnal, Fizika, 1961, No. 2, p. 219, # 20340

AUTHOR: Nasyrov, G.A.

TITLE: Hypersensitization of Photoemulsions by Mercury Vapors

PERIODICAL: "Tr. In-ta fiz. i geofiz. AN TurkmSSR", 1959, Vol. 6, pp. 151-160

TEXT: The author investigated hypersensitization of photoemulsions by Hg vapors with the purpose of selecting its optimum variant as applied to astro-photographic materials. The best results were obtained by holding photomaterials prior to exposure in Hg vapors at a temperature of 16-19°C for 4 days. Under these conditions, sensitivity increase amounted to from 2.8 to 22 times for different materials. ✓

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

TRUTTSE, Yu.L.; NASYROV, G.A.

Photographic observations of Schaumasse's comet (1959k) in
Ashkhabad. Astron. tsir. no. 214:3 S '60. (MIRA 14:1)

1. Fiziko-tehnicheskii institut AN TSSR.
(Comets—1959)

TRUTTSE, Yu.L.; NASYROV, G.A.

Photographic observations of nova Herculis (1960). Astron. tsir.
no. 21914-6 Mr '61. (MIRA 14:10)

1. Fiziko-tekhnicheskii institut AN Turkmenskoy SSR.
(Stars, New)

TRUTTSE, Yu.L.; NASYROV, G.A.

Photographic observations of Wilson's comet in Ashkhabad.
Astron. tsir. no. 226:2 0 '61. (MIRA 16:1)

1. Fiziko-tekhnicheskiy institut AN Turkmensoy SSR.
(Comets—1961)

NASYROV, G.A.

Processing of meteor photographs. Izv. AN Turk. SSR. Ser. fiz.-tekh.,-
khim. i geol. nauk no. 3:127 '62. (MIRA 16:5)

1. Fiziko-tehnicheskiy institut AN Turkmenskoy SSR.
(Meteors) (Astronomical photography)

TRUTTSE, Yu.L.; NASYROV, G.A.

Photographic observations of Humason's comet (1962e) in Ashkabad.
Astron. zh. no. 231:1-2 N '62. (MIRA 16:4)

1. Astrofotometrisheskaya laboratoriya Fiziko-tekhnicheskogo instituta
AN Turmenakoy SSR.

(Comets—1962)

TRUTTSE, Yu.L.; NASYROV, G.A.

Some characteristics of the astroclimate of the Bairam-Ali region
of Turkmen S.S.R. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk
no.1:101-103 '62. (MIRA 16:12)

NASYROV, G.A.

Atmospheric transparency as observed at Vannovskiy. Izv. AN Turk.
SSR.Ser. fiz.-tekh., khim. i geol. nauk no.4:128-130 '63.(MIRA 17:2)

1. Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR.

NASYROV, G.A.

Continuous background of airglow. Geomag. 1 aer. 4 no. 6:1128-1120
N-D '64. (MIRA 18.1)

1. Fiziko-tekhnicheskly institut AN Turkmenskoy SSR.

100/10-01 EMT(1)/EMT(m)/FCC/EMP(t)/ETI 1JP(c) JD/GW
ACC NR: A7001644

SOURCE CODE: UR/0203/66/006/004/0788/0789

AUTHOR: Nasyrov, G. A.

ORG: Physicotechnical Institute, AN TurkSSR (Fiziko-tekhnicheskiy Institut AN TurkSSR)

TITLE: Size of inhomogeneities of the green line of atomic oxygen in the night airglow

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 4, 1966, 788-789

TOPIC TAGS: airglow, photometry

ABSTRACT:

Observations of the night airglow made under the IQSY program were used in determining the size of spatial inhomogeneities of the green line of atomic oxygen OI λ 5577. Observations were made using a multi-channel scanning electrophotometer. The article presents the results of processing of observations made in January-December 1964. During this period a total of 3,240 spatial inhomogeneities were recorded on 59 nights. Brighter or fainter regions of glow are observed about 85% of the total time of observations. In the January-December period not a single night was observed with absence of such "spots", although sometimes they could not be observed for 1-2 hours. Statistical investiga-

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UDC: 551.524.72

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ACC NR: Ai7001644

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tions for determining the sizes of the spots made by Roach, et al (J. Atmos. and Terr. Phys., 1958, 13, 113) indicated that the sizes of the spots averaged 2,500 km. However, the author of this paper, using a highly sensitive electrophotometer, was able to detect spots of less than 30 km extent. Therefore, these inhomogeneous formations or spots of the green line of atomic oxygen in the night airglow probably measure from ten to several thousand km.

Orig. art. has: 2 figures and 1 table. [JPRS: 38,230]

SUB CODE: 04 / SUBM DATE: 05Jan66 / ORIG REF: 003 / OTH REF: 001

Card 2/2 bc

NASYROV, G.Z.; LAYNER, A.I.

Effect of potash lye and sulfates on the decomposition of
aluminate solutions in the complex treatment of alumite. Izv.
vys. ucheb. zav.; tsvet. met. 8 no.5:77-81 '65. (MIRA 18:10)

1. Moskovskiy institut stali i splavov, kafedra metallurgii
radioaktivnykh metallov i kompleksnoy pererabotki polimetall-
ochemskikh rud.

DANIELLOVA, T.A.; TITS-SKVOITSOVA, I.N.; KUZNETSOV, B.V.; NASYROV, I.

Interaction of mercury acetate aqueous solution with organic
sulfur compounds. Vest.Mosk.un.Ser.2: Khim. 17 no.2:72-75
Mr-Ap '62. (MIRA 15:4)

1. Kafedra khimii nefti Moskovskogo universiteta.
(Mercury acetate) (Sulfides)

DANILOVA, T.A.; TITS-SKVORTSOVA, I.N.; NASYROV, I.; KUZNETSOV, B.V.

Reaction of an aqueous solution of mercury acetate with sulfur
organic compounds. Vest. Mosk. un. Ser. 2: Khim. 20 no.2:79-90
Mr-Apr '65. (MIRA 18:7)

1. Kafedra khimii nef'ti Moskovskogo universiteta.

NASYROV, Inshar Islamovich; RUDAKOVA, L.A., red.; GAL'CHENKO, S.I.,
tekhn. red.

[Developing large oil fields] V bor'be za bol'shuiu neft'. Ufa,
Bashkirscoe knishnoe izd-vo, 1959. 117 p. (MIRA 15:5)
(Shkapovo—Petroleum industry)

ACC NR: AP6033572

SOURCE CODE: UR/0181/66/0087010/3070/3074

AUTHOR: Gil'fanov, F. Z.; Malkin, B. Z.; Nasyrov, I. K.; Stolov, A. L.

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: Temperature dependence of the widths and shifts of phononless absorption lines in crystals of fluorides activated with gadolinium

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 3070-3074

TOPIC TAGS: absorption line, line shift, line width, activated crystal, fluoride, temperature dependence, Stark effect, optic transition

ABSTRACT: The authors investigated the widths and shifts of the absorption lines of Gd^{3+} in CaF_2 , CaF_2 , SrF_2 , and BaF_2 crystals, corresponding to phononless transitions to Stark sublevels of the terms $^6P_{5/2}$ and $^6P_{7/2}$ from the ground state $^8S_{7/2}$, as functions of the concentration and temperature. Use was made of the energy levels of Gd^{3+} in these crystals, corresponding to different symmetry centers, published by the authors earlier (Opt. spektr. v. 20, 99, 1966; FTT v. 8, 142, 1966). The Gd content was 0.1, 0.3, and 1.0 at.%. The absorption spectra were obtained with a diffraction spectrograph (DFS-8-1). The crystals were grown by crystallization from the melt. The measurements were made in the interval 78--300K. All line widths increase with

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ACC NR: AP6033572

increasing temperature in nearly linear fashion. The maximum width range from 2 to 6 cm^{-1} at nitrogen and room temperatures, respectively. Line shifts occur with increasing temperature, amounting to 1--4 cm^{-1} , at all wavelengths. The line width is proportional to the Gd concentration. The widths and shifts increase with lowering of the crystal symmetry. The basic metal does not affect the results much. A formula is derived for the temperature dependence of the widths and shifts of cubic centers in metallic fluoride and is found to explain the observed experimental data. Orig. art. has: 3 figures and 5 formulas.

SUB CODE: 20/ SUBM DATE: 15Dec65/ ORIG REF: 003/ OTH REF: 005

Card 2/2

NASYROV, I. S.

SUDZHILOVSKIY, L. N.; NASYROV, I. S., Chief Veterinary Administration, Min Agriculture,
Dissection - Study and Teaching Bashkir ASSR

Specialization of veterinarians in dissection. Veterinariia 29 no. 9, 1952, p 14.

(Also TabCon 1952 - Trans 121), "Experiment on Specialization of Veterinarians
on Prosecution"

Monthly List of Russian Accessions, Library of Congress, November 1952 UNCLASSIFIED.

NASYROV, Khamrakul, Geroy Sotsialisticheskogo Truda, deputat Verkhovnogo Soveta SSR; KAVUN, P.K., red.; GUREVICH, M.M., tekhn.red.

[Cotton is our wealth; experience of the "Moskva" Collective Farm in Dzhisak District, Samarkand Province, Uzbekistan]
Khlopok - nasho bogatstvo; iz opyta raboty kolkhosa "Moskva" Dzhisakskogo raiona Samarkandskoi oblasti Uzbekskoi SSR.
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 63 p.

(MIRA 14:2)

1. Predsedatel' kolkhosa "Moskva" (for NasYROV).
(Dzhisak District--Cotton growing)

NOZDRYUKHIN, V.K.; KREYTER, A.A.; KLYAVIN, V.; ELIZOV, I.; SUSLOV, V.F.;
PAK, V.A., kand. geol.-min. nauk; YAKOVLEV, V.N.; LESNIK, Yu.N.;
KOROLEV, I.A.; RACHKULIK, V.I.; TACHKOVA, N.A.; KOLESNIKOVA,
V.H., kand. fis.-mat. nauk; NASYROV, M.; SHUL'TS, V.L., doktor
geolgr. nauk, prof., otv. red.; GAYSINSKAYA, I., red.; MASHARIPOVA, D.,
red.; GOR'KOVAYA, Z.P., tekhn. red.

[Fedchenko Glacier] lednik Fedchenko. Tashkent, Izd-vo Akad. nauk
Usbekskoi SSR. Vol.1. 1962. 247 p. (MIRA 15:8)

1. Akademiya nauk Usbekskoy SSR, Tashkent. Institut matematiki.
(Fedchenko Glacier)

NASYROV, M.

Salt of fertility. Sov. profsoiuzy 19 no.22:7-9 D '63.

(MIRA 1711)

1. Predsedatel' zavodskogo komiteta Chirchikskogo elektro-
khimicheskogo kombinata, chlen prezidiuma Tashkentskogo
oblastnogo soveta professional'nykh soyuzov, Uzbekskaya
SSR.

NASYROV, M.A.

Tasks and prospects in the development of the botanical garden of the Academy of Sciences of the Tajik S.S.R. in Leninabad. Uch. zap. LGPI no.6:7-14 '58. (MIRA 13:9)

1. Direktor botanicheskogo sada AN Tadzhikskoy SSR v g.Leninabade. (Leninbad--Botanical gardens)

YELISTRATOV, V.S.; PLYUSKOV, I.P.; NALYPOV, M.S.

Restoring the worn out parts of oil field equipment in the First
of May Oil Well Drilling Trust. Mash. i nef. oper. no. 9:32-40
'64. (MIRA 7 11)

1. Trest "Pervomaybureft".

NASYROV, N.

Dynamics of the infection of cotton by *Verticillium dahliae*
Kleb. Vop. biol. i kraev. med. no.4:55-58 '63.
(MIRA 17:2)

NASYROV, O.

Smut and rust fungi of the middle Amu Darya Valley. Izv. AN Turk. SSR
Ser. biol. nauk no. 4: 24-30 '62. (MIRA 15:9)

1. Institut botaniki AN Turkmenskoy SSR.
(AMU DARYA VALLEY—RUSTS(FUNGI) (AMU DARYA VALLEY—SMUTS)

NASYROV, O.

Peronosporales and Perisporiales in the middle Amu Darya Valley.
Izv. AN Turk. SSR. Ser. biol. nauk no. 5:17-23 '62. (MIRA 15:11)

1. Institut botaniki AN Turkmenskoy SSR.
(AMU DARYA VALLEY—PERONOSPORALES)
(AMU DARYA RIVER—PERISPORIALES)

PASTOR, ...

Apr 1 1967

NASYROV, P. M. (Kazan')

"On the Mass Flow of a Well Operating in a Heterogeneous Oil Layer."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

L 9621-66 EWT(d)/EWT(1)/EWT(m)/EWA(d)/FCS(k)/EWA(m)-2/EWA(1) TIP(c)
 ACC NR: AP6000426 SOURCE CODE: UR/0140/65/000/005/0115/0123
 44, 55
 AUTHOR: Engrov, P. H. (Kosov) 35
 B
 CDS: none
 TITLE: Stability on a finite time interval in the case of two pairs of pure imaginary roots
 SOURCE: Izv. Akad. Nauk, no. 5, 1965, 115-123
 44, 55
 TOPIC WORDS: differential equation, stability
 ABSTRACT: The author considers the problem of establishing sufficient conditions for stability of unperturbed motion on a finite time interval $[t_0, t_0 + T]$ and determines T , assuming $t_0 + T \leq 2$, for the system of perturbed motion

$$\frac{dx_1}{dt} = -i_1 y_1 + X_1(t, x_1, x_2, y_1, y_2, \dots, u),$$

$$\frac{dy_1}{dt} = i_1 x_1 + Y_1(t, x_1, x_2, y_1, y_2, \dots, u),$$

$$\frac{dx_2}{dt} = p_{21} x_1 + \dots + p_{2n} x_n + p_{21}^{(s)} x_1 + q_{21}^{(s)} y_1 + p_{22}^{(s)} x_2 + q_{22}^{(s)} y_2 +$$

$$+ \Phi_2(t, x_1, x_2, y_1, y_2, \dots, u),$$

$$j = 1, 2, s = 1, 2, \dots, n, \text{ in terms of } X_j, Y_j, \Phi_s.$$
 Here the coefficients of the
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nonlinear functions X_j, Y_j, F_j , holomorphic with respect to $x_1, y_1, x_2, y_2, \eta_1, \eta_2, \dots, \eta_n$, are real continuous functions on the interval $[t_0, T]$. Assume that for the system

$$\frac{dx_i}{dt} = p_{i1}x_1 + \dots + p_{in}x_n \quad i=1, 2, \dots, n, \quad (2)$$

criteria of stability are satisfied in the first approximation or the characteristic equation at the initial moment of time

$$\det(p_{ij}(t_0) - \delta_{ij}) = 0 \quad (3)$$

has only roots with negative real parts. The coefficients p_{ij} in the first case are assumed to be continuous bounded functions for $t \geq t_0$, and in the second, are continuous functions on the interval $[t_0, T]$. Orig. art. has: 37 formulas.

SUB CODE: 12/ SUBM DATE: 12Oct64/ ORIG REF: 004

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CmJ 2/2

NASYROV, R.A.

Strength of Construction Elements

Dissertation: "Investigation of the Torsional Vibrations of the Shaft of the D-50 Diesel Locomotive Engine by the Method of Electromechanical Analogies." Cand Tech Sci, Moscow Electromechanical Inst of Railroad Transport Engineers, Moscow, 1953. (Referativnyy Zhurnal, Mekhanika, Moscow, Mar 54).

SO: SUM 213, 20 Sep 54

SOV/112-57-5-10825

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 177 (USSR)

AUTHOR: Golovko, M. D., Nasyrov, R. A

TITLE: Electrical Integrator for Solving the Problems of Dynamics of Mechanical Systems (Elektrointegrator dlya resheniya zadach dinamiki mekhanicheskikh sistem)

PERIODICAL: Vestn. Vses. n.-i. in-ta zh.-d. transp., 1956, Nr 1, pp 53-54

ABSTRACT: Construction and work procedures on the electric EI-DMS integrator are considered; the integrator is an analog computer based on the analogy between electrical and mechanical processes. An electric circuit equivalent to the mechanical system under study can be formed according to analogy rules and scale relationships. The processes taking place in the model are described by ordinary linear differential equations whose number may reach 30. Computations are made for the case of steady-state periodic oscillations. Inductance, capacitance, and resistance members simulating the properties of the mechanical system being studied are supplied with the EMFs simulating

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SOV/112-57-5-10825

Electrical Integrator for Solving the Problems of Dynamics of Mechanical Systems

perturbing forces. Phototubes are used as the EMF sources; phototube current is varied according to the law of variation of the perturbing force. This is attained by passing the luminous flux received by each phototube through a corresponding photodiagram that is placed in a rotating transparent drum (the photopickup has 6 drums). The solution in the setup circuit is fixed by an electronic or loop oscillograph in the form of voltage (or current) variations at various nodes of the circuit. The EI-DMS integrator guarantees an error of determination of self-oscillations under $\pm 1\%$ and an error in determining the amplitudes of forced oscillations within $\pm 3\%$. An investigation of torsional oscillations of axles of a 2D 100 locomotive motor has been conducted by the EI-DMS; the instrument may also be used for estimating the oscillations of buildings during earthquakes, or for calculating vertical oscillations of locomotives and railroad cars under various conditions, including different car constructions, rail lengths, and motion speeds

B. I. P.

Card 2/2

NASYROV, Rifkat Akhmetovich; GROMOV, Sergey Aleksandrovich; VOLODIN, A.I.,
kand.tekhn.nauk, red.; BOBROVA, Ye.N., tekhn.red.

[Operation of the TE3 diesel locomotive; maintenance and repair]
Ekspluatatsiia teplovozov TE3; obsluzhivanie i remont. Moskva, Gos.
transp.shel-dor.isd-vo, 1957. 120 p. (MIRA 11:1)
(Diesel locomotives--Maintenance and repair)

Nasyrov
SIMSON, A.E., kand.tekhn.nauk; NASYROV, R.A., kand.tekhn.nauk; SERIPETS, N.F.,
inzhener; FAVOROV, Yu.L., aspirant.

Dynamic characteristics of two-cycle diesel engines with diverging
pistons. Vest.TSNII MPS 16 no.6:39-44 S '57. (MIRA 10:10)

1. Khar'kovskiy teplovozostroitel'nyy zavod im. V.A.Malyshova,
Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo
transporta i Khar'kovskiy institut inzhenerov zheleznodorozhnogo
transporta im. S.M.Kirova.

(Diesel locomotives)

NASYROV, R.A., kand.tekhn.nauk

Investigating the causes for lubricant thinning in the 2D100
engine. Vest. TSHII MPS [17] no.7:37-39 W '58. (MIRA 11:12)
(Diesel engines--Testing)
(Lubrication and lubricants--Testing)

NASYROV, R.A., kand.tekhn.nauk

Torsion vibrations in the shaft of the D50 diesel engine. Trudy
TSNII MFS no.149:4-29 '58. (MIRA 11:6)
(Diesel engines) (Shafting--Vibration)

NASYROV, R.A., kand. tekhn. nauk

Investigating the temperature fields of the 2D100 engine pistons
by the method of electric analogies. Vest. TSNII MPB 18 no.7:50-52
N '59. (MIRA 13:2)
(Pistons--Electromechanical analogies) (Heat transfer)
(Diesel locomotives)

NASYROV, Rifkat Akhmetovich, kand.tekhn.nauk; KHUTORYANSKIY, N.M.,
kand.tekhn.nauk, red.; MEDVEDOVA, M.A., tekhn.red.

[Crank gear of locomotive diesel engines] Shatunno-krivo-
shipnyi mekhanizm teplovosnykh dizelei. Moskva, Vses.izdatel'sko-
poligraficheskoe ob"edinenie M-va putei soobshcheniia, 1960. 69 p.
(MIRA 14:1)

(Diesel locomotives)

(Diesel engines)

NASYROV, R.A., kand.tekhn.nauk; SEMISAZHENOVA, A.A., inzh.;
ZAKHAROV, S.M., inzh.

Results of the study of oil coolers for the pistons of 2D10⁰
diesel engines. Vest. TSNII MPS 20 no.6:21-24 '61. (MIRA 14:10)
(Diesel engines--Cooling)

NASYROV, B. A., kand. tekhn. nauk; MIRZA, A. N., inzh.

Cause of the early failure of the pistons of the 2D100 diesel
engine. Elek. i topl. tiaga 6 no.9:32-34 3 '62.
(MIRA 15:10)

(Diesel engines) (Diesel locomotives)

NASYROV, R.A., *kand.tekhn.nauk*

What causes the uneven power distribution between the crankshafts
of the 2D100 diesel locomotive? Elek. i tepl.tiaga no.7:32-34 JI
'63. (MIRA 16:9)

(Diesel locomotives--Testing)

ZELENETSKAYA, I.S., kand.tekhn.nauk; NARSIKH, I.I., kand.tekhn.nauk;
NASYROV, R.A., kand.tekhn.nauk; ROMANOVA, L.A., inzh.

Damage to the pistons and crankshaft bearings of the 2D100 diesel locomotives during operation when using various lubricating oils.
Trudy TSNII MPS no.262:5-20 '63. (MIRA 16:10)

NASYROV, R.A., kand.tekhn.nauk; SEMISAZHENOVA, A.A., kand.tekhn.nauk;
ZAKHAROV, S.M., inzh.

Investigating the cooling of pistons and lubricant distribution
in the 2D100 diesel engine. Trudy TSNII MPS no.262:21-35 '63.
(MIRA 16:10)

NASYROV, R.A., kand. tekhn. nauk; KLIMOV, N.N., inzh.

Answers to readers' queries. Elek. i topl. tiaga 7 no.10:35
0 '63. (MIRA 16:11)

YEGUNOV, P.M., kand. tekhn. nauk; ZELENETSKAYA, I.S., kand. tekhn.;
NASTROY, R.A., kand. tekhn. nauk; SEMISAZHENOVA, A.A., kand.
tekhn. nauk; ZAKHAROV, S.M., inzh.

Effect of the lubricant viscosity on the basic characteristics
of the performance of 2D100 diesel locomotives. Vest. TSNII MPS
23 no.8:26-30 '64 (MIRA 18:3)

NASYROV, R.G.; MOLCHANOVA, A.I.

Organization of work in shelterbelt forestry and landscape gardening in the Golodnaya Steppe. Mat. po proizv. sl. Uzb. no.15:448-455 '60. (MIRA 14:8)

1. Glavgolodnostepstroy i Nauchno-issledovatel'skiy institut lesnogo khozyaystva Akademii sel'skokhozyaystvennykh nauk Uzbekskoy SSR.

(Golodnaya Steppe—Windbreaks, shelterbelts, etc.)

(Golodnaya Steppe—Landscape gardening)

HASYROV, R.M.

Determining the form of a biplane according to given distribution
of speed on the surfaces of profiles making up the biplane. Uch.
rep. Kaz. un. 113 no.10:31-41 '53. (MIRA 10:6)

1. Kafedra mekhaniki.
(Functional analysis) (Aerodynamics)

MASTROV, R.M.

Remarks on the displacement velocity formula of surfaces. Uch.sap.
Kas.un. 116 no.1:59-60 '55. (MLRA 10:5)

1. Nauchno-issledovatel'skiy institut matematiki i mekhaniki im.
N.G. Chebotareva.

(Fluid dynamics)

SOV/124-57-4-4471

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 86 (USSR)

AUTHOR: Nasyrov, R. M.

TITLE: On the Problem of Determining the Pressure Field in a Reservoir of Variable Permeability (K voprosu opredeleniya polya davleniy v plaste peremennoy pronitsayemosti)

PERIODICAL: Uch. zap. Kazanskogo un-ta, 1956, Vol 116, Nr 1, pp 61-65

ABSTRACT: On the assumption that the liquid under consideration is incompressible and homogeneous, that its motion conforms to a linear law of seepage flow, and that the permeability of the reservoir $k(x, y)$ is variable, the pressure function $p = p(x, y)$ is determined with the aid of the equation

$$\frac{\partial}{\partial x} \left(k \frac{\partial p}{\partial x} \right) + \frac{\partial}{\partial y} \left(k \frac{\partial p}{\partial y} \right) = 0 \quad (*)$$

where $p = p_0$ along the contour of influence L , n wells being present in the oil-bearing region. By introducing the variable $u = p\sqrt{k}$, the equation (*) is reduced to the form:

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On the Problem of Determining the Pressure Field in a Reservoir (cont.)

$$\Delta \sqrt{k} u - u \Delta \sqrt{k} = 0 \quad \left(\Delta = \frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} \right)$$

A solution of the problem is given for a case when the function $\sqrt{k(x, y)}$ satisfies the Helmholtz equation $\Delta \sqrt{k} + a \sqrt{k} = 0$. The solution assumes the form of the sum of two functions u_1 and u_2 , viz., $u = u_1 + u_2$. Function u_1 acquires a zero value at the contour L and exhibits a logarithmic singularity at points corresponding to the location of the wells; function u_2 is regular within the boundaries of the oil-bearing region and acquires prescribed values at the contour L .

V. A. Karpychev

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SOV/124 57 7 8098

Translation from: Referativnyy zhurnal. Mekhanika 1957 Nr 7 p 98 (USSR)

AUTHOR: Nasyrov R. M

TITLE: On the Determination of the Pressure Field in a Stratum of Variable Permeability Taking Into Account the Differences in the Viscosity of Water and Oil (K voprosu opredeleniya polya davleniy v plaste peremennoy pronitsayemosti s uchetom razlichiya vyazkostey vody i nefti)

PERIODICAL: Uch. zap. Kazansk. un-ta 1956 Vol 116 Nr 5 pp 45-49

ABSTRACT: The author examines a circular stratum bounded by a feed contour Γ_n . The boundary Γ_k between the oil and water during the process of exploitation of the stratum by means of wells located at points $A_i(x_i, y_i)$ ($i = 1, 2, \dots, n$) is imagined as being displaced in accordance with the given law $F(x, y, t) = 0$. It is assumed that the exploitation is performed by the water drive method, that the fluids are incompressible, and that the seepage law is linear; it is further assumed that the permeability coefficient $k(x, y)$ represents a function that is continuous and finite together with its derivatives up to and including the second order ($k \neq 0$ at any point of the stratum). The

Card 1/4

SOV 124-57 7 8098

On the Determination of the Pressure Field in a Stratum of Variable (contin.)

pressure $p(x, y, t)$ is determined from the equation

$$\frac{\partial}{\partial x} \left(k \frac{\partial p}{\partial x} \right) + \frac{\partial}{\partial y} \left(k \frac{\partial p}{\partial y} \right) = 0 \quad (1)$$

By the usual substitution of $u = p \sqrt{k}$ equation (1) is transformed to appear as

$$\Delta u - \frac{\Delta \sqrt{k}}{\sqrt{k}} u = 0 \quad (2)$$

The author analyzes a case when equation (2) assumes the form of

$$\Delta u + a^2 u = 0 \quad (3)$$

The problem is reduced to the determination of the function u from equation (3) with the following boundary conditions: a) At the points $A_1(x_1, y_1)$ the function u has logarithmic singularities; b) the function $u = 0$ on the contour Γ_n ; c) on the contour Γ_k $u^+ = u^-$.

(Equations on next card)

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SOV/124 57 7 8098

On the Determination of the Pressure Field in a Stratum of Variable (cont.)

$$\frac{\partial u^+}{\partial n} - \frac{\partial u^-}{\partial n} - \frac{(\mu_n - \mu_v)m}{\sqrt{k}} \frac{\partial F}{\partial t} / \frac{\partial F}{\partial n} \quad (4)$$

$$\frac{\partial u^+}{\partial n} + \frac{\partial u^-}{\partial n} - \frac{(\mu_n - \mu_v)m}{\sqrt{k}} \frac{\partial F}{\partial t} / \frac{\partial F}{\partial n} + \frac{1}{k} \frac{\partial k}{\partial n} u \quad (5)$$

where the superscripts plus and minus correspond to the areas occupied by the oil and the water, respectively; μ_n and μ_v are the viscosity coefficients of oil and water; m is the porosity of the medium, and n is the normal to the contour Γ_k . The solution of the equation (3) is found in the form of the sum

$$u = u_1 + u_2$$

where the function u_1 satisfies the conditions a) b) and c), and the function u_2

Card 3/4

SOV/124 57-7 8098

On the Determination of the Pressure Field in a Stratum of Variable (cont.)

satisfies the conditions a) and b) and equation (4). Equation (5) cannot be satisfied exactly for the a priori prescribed law governing the contraction of the contour Γ_k . The determination of the so-called discrepancy and its minimum for the accomplishment of a prescribed movement of the line constitutes the problem of the control of the movement of the oil bank contour line (RZh-Mekh.1956 abstract 530)

V. A. Karpychov

Card 4/4

NASYROV, R.M.

Determining the nonhomogeneity of a formation by the hydrodynamic method. Uch. zap. Kaz. un. 117 no.9:133-138 '52.

(MIRA 13:1)

1. Nauchno-issledovatel'skiy institut matematiki, i mekhaniki im. N.G. Chebotareva.

(Oil sands--Permeability)

AUTHOR: Nasyrov, R.M. (Kiyev) SOV 140 58-111/21

TITLE: On a Method for the Reconstruction of the Pressure Function in the Inhomogeneous Porous Medium (Ob odnom metode vosstanovleniya funktsii davleniya v neodnorodnoy poristoy srede)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Ministerstva vysshego obrazovaniya SSSR, Matematika, 1958, Nr 1, pp 114-123 (USSR)

ABSTRACT: The determination of the pressure function in an inhomogeneous, non-deformed porous medium in presence of filtration is essentially carried out by successive approximation according to Khristianovich [Ref 1]. There are 3 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut matematiki i mekhaniki imeni N.G. Chebotareva pri KGU (Scientific Research Institute for Mathematics and Mechanics imeni N.G. Chebotarev of the Kiyev State University)

SUBMITTED: November 5, 1957

Card 1/1

NASYROV, R.M.

Applying the Dupuit formula to nonhomogeneous layers. Izv.vys.ucheb.
sav.; neft' i gaz 1 no.9:67-72 ' 58. (MIRA 11:12)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova
(Lenina).

(Petroleum engineering)

NASYROV, R.M.

Yield of a well in a nonuniform oil layer. Izv. vys. ucheb.
sav.; neft' i gas 3 no.5:71-74 '60. (MIRA 15:6)

1. Kazanskiy gosudarstvennyy universitet imeni V.I. Ul'yanova-
Lenina.

(Oil reservoir engineering)

ACCESSION NR: AR4039290

S/0044/64/000/003/B053/B053

SOURCE: Ref. zh. Matematika, Abs. 38252

AUTHOR: Nasyrov, R. M.

TITLE: A critical case in stability of motion in a finite time interval

CITED SOURCE: Sb. Itog. Nauchn. konferentsiya Kazansk. un-ta za 1962 g. Sekts. matem. n. Kazan', Kazansk. un-t, 1963, 158-160

TOPIC TAGS: motion stability critical case, null solution stability, two equation system, eigen value, linear approximation matrix

TRANSLATION: The author studies the question concerning the stability of the null solution of a system of two equations with purely imaginary eigen values for the matrix of linear approximation in the case where it (the question) is solved by means of a finite number of terms in the expansion of the right hand parts. V. Zubov.

DATE ACQ: 22Apr64

SUB CODE: MA

ENCL: 00

Card 1/1

NASTROV, R.M.

Stability of almost periodic motions in certain critical cases.
Trudy Un. drush. nar. i Teor. mekh. no.2:30-44 '64.
(MIRA 18:9)

L 36004-66 EWT(d) IJP(c)
 ACC NO: AN6004024

SOURCE CODE: UR/0044/65/000/009/BO40/BO40

AUTHOR: Nasyrov, R. M.

TITLE: Stability of almost periodic motions in certain critical cases

SOURCE: Ref. zh. Matematika, Abs. 9B194

REF SOURCE: Tr. Un-ta drushby narodov im. Patrisa Lumumby, v. 5, 1964, 30-44

TOPIC TAGS: periodic motion, periodic function, complex function

ABSTRACT: The system is considered:

$$\frac{dz}{dt} = a_0 z + \dots + a_m z^m + Z_s(t, z_1, \dots, z_m),$$

where a_j are constants. The equation $|a_0 - i\lambda_{s,j}| = 0$ has roots only with zero and negative real parts. The functions Z_s are analytic in z and almost periodic in t , and their expansions begin with terms no lower than second order. It is established that under certain assumptions the theorems of G. V. Kamenkov (1939), which were proved by him on analysis of critical cases under the assumption that Z_s are periodic, can be extended to the case of a system with almost periodic Z_s . B. Bylov [Translation of abstract]

SUB CODE: 12

Card 1/1

UDC: 517.917

L 2033-65 EWT(d)/EWA(m)-2 IJP(c)/AFWL/ASD(a)-5/ASD(s)/AFETR/ESD(dp)

ACCESSION NR: AP5003636

S/0140/64/000/005/0061/0068

AUTHOR: Nasyrov, R. M. (Kazan)

TITLE: Stability of a pair of purely imaginary roots in the critical case over a finite time interval

SOURCE: IVUZ. Matematika, no. 5, 1964, 61-68

TOPIC TAGS: differential equation, function theory

Abstract: A system of differential equations of the perturbed motion type is

$$\frac{dx}{dt} = -\lambda y + X(t, x, y, x_1, \dots, x_n),$$

$$\frac{dy}{dt} = \lambda x + Y(t, x, y, x_1, \dots, x_n),$$

$$\frac{dx_s}{dt} = P_{s1} x_1 + \dots + P_{sn} x_n + P_s x + q_s y + x_s(t, x, y, x_1, \dots, x_n) \\ (s = 1, 2, \dots, n),$$

where the coefficients of the nonlinear holomorphic functions x, y, x_s are real and continuous functions of $t \in [t_0, T]$. Since the problem

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L 20033-65

ACCESSION NR: AP5003636

of stability over a finite interval of time is not solved by first approximation equations, nonlinear terms have to be considered. The author considers the problem of establishing the stability or instability of unperturbed motion according to the structure of the functions x, y, x_s . He considers first, second, and $(n+2)$ -th order equations.

ASSOCIATION: none

SUBMITTED: 06May63

ENCL: 00

SUB CODE: MA

NO REF SOV: 003

OTHER: 000

JPRS

Card 2/2

NASYROV, R.M. (Kazan')

Stability in the final time interval in the case of two pairs of
purely imaginary roots. Izv.vys.ucheb.zav.; mat. no.5:115-123 '65.
(MIRA 18:10)

ACC NR: AP7008923

SOURCE CODE: UR/0140/66/000/005/0100/0111

NASYROV, R. M., Kazan'

"Qualitative Investigation of a Singular Case of Stability in the Case of Two Zero Roots"

Kaza', Izvestiya Vuzov -- Matematika, No 5, 1966, pp 100-111

ABSTRACT: The investigation of a singular case of stability of motion by Lyapunov's direct method was considered by G. V. Kamenkov. The present article gives an analysis of stability of motion in a singular case on the basis of a qualitative investigation of trajectories in the neighborhood of a singular line. This analysis also makes possible a solution to the question of conditional stability of motion in a singular case. The author uses for the qualitative investigation the method of normal domains and the Frommer-Kukles method in conjunction with Lyapunov's direct method. The article considers the simple case where there is present a unique, nonmultiple singular line.

Orig. art. has:

11 figures and 3 formulas. [JPRS: 39658]

ORG: none

TOPIC TAGS: motion stability, physics

SUB CODE: 20

Card 1/1

UDC: 517.917

0929 1742

ACC NR: AR6026487

SOURCE CODE: UR/0274/66/000/004/A024/A024

AUTHOR: Kozlov, V. A.; Nasyrov, R. V.; Shteyn, V. K.

TITLE: Stability of the kinematic magnetostriction filter

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 4A150

REF SOURCE: Sb. Vopr. teorii i nadeshnosti apparatury i kanalov svyazi. Tashkent, Nauka, 1965, 214-220

TOPIC TAGS: magnetostriction, filter, ~~magnetostriction~~ resonator

ABSTRACT: Factors are considered which assure stability to magnetostriction resonators (MR) used in kinematic magnetostriction filters. The thermal stability of Q-factor and resonance frequency and their effects on the cross attenuation at 20--60C are analyzed. Temperature variation impairs the cross attenuation (due to Q-factor instability) by 25 db or less. Instability of the resonance frequency has a greater effect. The effect of instability of electromechanical-coupling coefficient K and static inductance on the oscillation suppression has been studied. With a suppression duration of 1 microsec, a MR with $K > 12\%$ permits obtaining a depth of suppression upto 60 db; the effect of temperature instability can be neglected. The effect of inductance instability is serious but it can be reduced by introducing a capacitor with a negative temperature coefficient into the suppression loop. Four figures. Three tables. Bibliography of 5 titles. L. S. [Translation of abstract]

Card 1/1 SUB CODE: 20 09

UDC: 621.372.542.24

GUSSAK, Veniamin Borisovich; NASYROV, Yakh'ya Mirsaidovich;
SKVORTSOV, Yuriy Aleksandrovich; BOYKO, A.N., red.; SOROKINA,
Z.I., tekhn. red.

[Soil formation on loess accumulations of various ages and
the fertility of Sierozems] Pochvoobrazovanie na lessovykh
akkumuliatsiyakh raznogo vozrasta i plodorodie sierozemov.
Tashkent, In-t pochvovedeniia, 1961. 159 p. (MIRA 15:7)
(Uzbekistan—Sierozem soils)
(Uzbekistan—Loess)

BUTSKOV, N.A.; NASYROV, Ya.M.; PANKOV, M.A., doktor sel'khoz. nauk,
otv. red.; KURANOVA, L.I., red.; KRIVONOSOVA, N.A., red.;
SOROKINA, Z.I., tekhn. red.

[Soils in the southwestern Kyzyl Kum] Pochvy Iugo-Zapadnykh
Kyzylkumov. Tashkent, In-t pochvovedeniia, 1961. 198 p.
(MIRA 15:7)

(Kyzyl Kum—Soils)

NASYROV, Yu. S.

"Photosynthesis of the Cotton Plant as a Factor of Its
Productivity." Cand Biol Sci, Inst of Botany imeni V. L. Komarov,
Acad Sci USSR (Apr-Jun 54). (Vest Ak Nauk, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

NASYROV, Yusuif Saidovich; BREGUTOVA, L.G., otv.red.; VINOGRADSKAYA, S.N.,
red.isd-va; PAULOV, P.M., tekhn.red.

[Photosynthesis and the yield of cotton] Fotosintez i urozhai
khlopushatnika. Stalinabad. Isd-vo AN Tadzh.SSR. 1956. 122 p.
(Akademiia nauk Tadzh.SSR, Stalinabad, Trudy, vol.60)

(Cotton growing)

(Photosynthesis)

(MIRA 12:6)

NASYROV, Yu.S.

Basic results and future development of the physiology and biochemistry of plants in Tajikistan. Trudy Otd. fiziol. i biofiz. rast.
AN Tadsh. SSR 1:3-17 '62. (MIRA 16:3)

(Tajikistan--Plant physiology)
(Tajikistan--Botanical chemistry)

NASYROV, Yu.S.

Photosynthesis of mesophilous and xerophilous trees of the
Kondara Gorge. Trudy Otd. fiziol. i biofis. rast. AN Tadzh. SSR
1:18-35 '62. (MIRA 16:3)
(Photosynthesis) (Kondara Gorge—Trees)

MASYROV, Yu.S.

Photosynthesis of plants of the Anzob Pass. Trudy Otd. fiziol. i
biofis. rast. AN Tadsh. SSR 2:108-124 '62. (MIRA 16:4)
(Anzob Pass—Alpine flora) (Photosynthesis)

NASYROV, Yu.S.; GILLER, Yu.Ye.; LOGINOV, M.A.; LEBEDEV, V.N.

Using C^{14} for studying the photosynthetic balance in the plants
of phytocoenoses. Bot.zhur. 47 no.1:96-99 Ja '62.

(MIRA 15:2)

1. Laboratoriya fiziologii i biofiziki rasteniy AN Tadzhikskoy SSR,
Dushanbe.

(Plant communities) (Photosynthesis)

NASYROV, Yu.S.

Photosynthesis in the dominant species of shortgrass semisavannas
Bot.zhur. 47 no.4:485-494 Ap '62. (MIRA 15:8)

1. Botanicheskiy institut AN Tadzhikskoy SSR, Dushanbe.
(Vakhsh Valley—Grasses) (Photosynthesis)

NASYROV, Yu.S.; ABDURAKHMANOVA, Z.N.; GILLER, Yu.Ye.

Interrelation between the photosynthesis and water metabolism in
plants. Trudy Otd. fiziol. i biofiz. rast. AN Tadz. SSSR no.3:3-
12 '63. (MIRA 16:9)

MAKHMADBEKOVA, L.M.; NASYROV, Yu.S.

Metabolism of carbon absorbed in photosynthesis by plants as related to the conditions of water supply. Trudy Otd. fiziol. i biofiz. rast. AN Tadzh. SSSR no.3:17-22 '63. (MIRA 16:9)

RAKHMANINA, K.P.; NASYROV, Yu.S.

Photosynthesis and water balance in plants as related to their
ecology and origin. Trudy Otd. fiziol. i biofiz. rast. AN Tadzh.
SSSR no.3:23-28 '63. (MIRA 16:9)

TRANSFER PAGE SERIES 0000

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ACCESSION NR: AB4023353

8/8299/64/000/004/0006/0006

SOURCE: RZh. Biologiya, Abs. 4635

AUTHOR: Egamberdyev, A. R.; Aliyev, K. A.; Masyrov, Yu. S.

TITLE: Migration of radioactive photosynthesis products from the leaves to the bolls in cotton

CITED SOURCE: Trakt. ob. Otd. fiziol. i biofiz. rast. AN TadzhSSR, no. 4, 1963, 36-41

TOPIC TAGS: cotton plant, photosynthesis, photosynthesis product assimilation, photosynthetic assimilate migration, intraplant assimilate migration

TRANSLATION: The dynamics of the migration of organic substance from the leaves to the bolls were studied in cotton plants of the 100-F variety, grown on test plots in the Tadzhik SSR. The study employed supplemental nutrition with $Cl^{14}O_2$, and the cotton was planted at intervals of five days between April 1st and May 25th. Exposures lasted 5 minutes. The principal amount of assimilated matter reaching a boll comes from the leaf at the base of which it is located. Variations in the dynamics of accumulation of organic matter in the boll, the drainage

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ACCESSION NR: ARA023353

of assimilants from the leaf and the intensity of photosynthesis are interrelated. Two peaks were noted - during the initial and terminal periods of ripening of the boll (i.e. 5th and 45th days). The largest amount of C^{14} accumulating in a pod settles in the seeds and fibers. The maximal accumulation in the fibers precedes maximal accumulation in the seeds. L. Polishchuk

DATE ACQ: 16Mar64

SUB CODE: AM

ENCL: 00

Card 2/2

NASYROV, Yu.S.; LOGINOV, M.A.

Study of the photosynthetic balance of herbaceous plant phyto-
cenoses. Bot. zhur. 49 no.1:30-38 Ja '64. (MIRA 17:2)

1. Otdel fiziologii i biofiziki rasteniy AN Tadzhikskoy SSR, Du-
shanbe.

REYNUS, Roza Mikhaylovna; NASYROV, Yu.S., otv. red.

[Carbohydrate metabolism in plants of the high mountains
of the Pamirs] Uglevodnyi obmen rastenii v usloviakh
vysokogor'ii Pamira. Dushanbe, Izd-vo AN Tadzhik.SSR,
1964. 136 p. (MIRA 18:3)

L 13100-65 ENG(j)/ENG(r)/ENT(1)/FS(v)-3/ENG(v)/ENG(a)-2/ENG(c) Pb-4/Pe-5 DD
ACCESSION NR: AR5008611 S/0299/65/000/004/G008/G008

SOURCE: Ref. zh. Biologiya. Svodnyy tom, Abs. 4G57

AUTHOR: Loginov, M. A.; Nasyrov, Yu. S.

TITLE: Photosynthesis in some cultivated plants

CITED SOURCE: Tr. Otd. fiziol. i biofiz. rast. AN TadzhSSR, v. 3, 1964, 49-67

TOPIC TAGS: photosynthesis, agricultural crop, steppe productivity, sedge fescue steppe, beet photosynthesis, barley photosynthesis, sunflower photosynthesis, plant productivity, transpiration, assimilative capacity, moisture consumption

TRANSLATION: Using beets, barley and sunflower as examples, the authors studied the relationship between the diurnal and seasonal variations in photosynthesis (by means of a radioactive method), the pure productivity of the plant (by the method of weight calculation), and the intensity of transpiration. The diurnal rhythm of photosynthesis (in beets, for example) is characterized by a curve with a single maximum in the afternoon, a very high assimilative capacity (200 mg CO₂ per gram of dry leaf weight per hour) and a relatively economical consumption of moisture. Beets are characterized by a uniform sea-

high assimilative capacity (200 mg CO₂ per gram of dry leaf weight per hour) and a relatively economical consumption of moisture. Beets are characterized by a uniform seasonal course of photosynthesis. Barley shows a high intensity of potential photosynthesis

Card 1/2

L 43100-65
ACCESSION NR: AR5008611

at the beginning of its development; a second maximum in the photosynthesis curve appears at the beginning of August (in the heading phase). In contrast to wild flora, cultivated agricultural crops show a high assimilative capacity over the course of a long period (60-70 days), which results in high productivity. In these plants, the majority of the products of photosynthesis are used for the formation of economically valuable organs. Thus, having a high rate of photosynthesis and a vigorously developed leaf surface area, these

ducts of photosynthesis are used for the formation of economically valuable organs. Thus, having a high rate of photosynthesis and a vigorously developed leaf surface area, these crops can accumulate 70-80 metric centners of overall biological yield, or 40-50 metric centners of above-ground mass, per hectare per season, which is 3-4 times as high as the productivity of the natural vegetation of a sedge-fescue steppe; when cultivated under dry conditions, these crops have a low transpiration coefficient (200-350). All of this points up the necessity of replacing the natural vegetation by cultivated crops. V. Korshunova

SUB CODE: LS

ENCL: 00

Bgs

2/2

Card

NASYROV, Yu.S.; RAKHMANINA, K.P.

Physiological characteristics of barley as related to its growing
in various vertical belts of Tajikistan. Trudy Otd. fiziol. i
biofis. rast. AN Tadzh. SSR 3:68-81 '64. (MIRA 18:4)

NASYROV, Yu.S., otv. red.; SAPOZHNIKOV, D.I., red.; PROKOF'YEV, A.A., red.; ZALENSKIY, O.V., red.; MAKUMOV, A.N., red.; KARIMOV, Kh.Kh., red.; LOGINOV, M.A., red.; GILLER, Yu.Ye., red.; USMANOV, P.D., red.; KAS'YANENKO, A.G., red.; RAKHMANINA, K.F., red.

[Contribution of plant physiology to agriculture; problems of photosynthesis and metabolism] Fiziologiya rastenii - sel'skoye khoziaistvo; voprosy fotosinteza i obmena veshchestv. Dushanbe, Izd-vo AN Tadzhikskoy SSR, 1965. 131 p.

(MIRA 18:4)

1. Akademiya nauk Tadzhikskoy SSR, Dushanbe. Institut fiziologii i biofiziki rastenii.

L 33660-66 EWT(1) SCTB DD
ACC NR: AT6013448 SOURCE CODE: UR/3179/65/007/000/0133/0141
AUTHOR: Nasyrov, Yu. S.; Rakhmanina, K. P. 27
ORG: none B+1
TITLE: Photosynthesis and transpiration of Gissar Range plants
SOURCE: Vsesoyuznoye botanicheskoye obshchestvo. Problemy botaniki, v. 7, 1965. Voprosy biologii i fiziologii rasteniy v usloviyakh vysokogoriy (Problems of biology and physiology of plants at high altitudes), 133-141
TOPIC TAGS: plant ecology, photosynthesis, plant morphology, climatic influence
ABSTRACT: Photosynthesis intensity and transpiration rate of plants growing at a 3500 m altitude in the Gissar Range were investigated in 1956-57 by the Botanical Institute of the AN TadzhSSR. The climate of the area characterized by considerable daily and seasonal temperature shifts, dryness of air, high insulation, and little precipitation is classified as a moderately humid high altitude subtropic zone. Findings show that photosynthesis intensity and transpiration activity of high altitude plants is relatively low. The photosynthesis apparatus of
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L 33660-66

ACC NR: AT6013448

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aryophytic plants appears adapted to low temperatures; the most favorable conditions for their assimilation activities are intense light and low temperature. Mesophytes of the subalpine zones are characterized by relatively active assimilation and transpiration. Highest photosynthetic activity is found in xeromesophytes. Plants with a marked xeromorphic structure display relatively low activity. With increase of altitude, photosynthesis intensity of oligothermic plants increases and that of mesothermic plants decreases. Photosynthesis and transpiration quantitative changes at different altitudes are determined by external factors and by the ecological type of plant. Orig. art. has: 1 table and 3 figures.

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 015/ OTH REF: 009

Card 2/2 m

L 33257-66

ACC NR: AT6012787

SOURCE CODE: UR/3175/66/000/027/0093/0100

AUTHOR: Ivanov, V.G.; Natadze, A.L.

ORG: TsNII

TITLE: Analysis of the transfer properties of magnetometer with a sounding ferromagnetic sensor 89
2+1

SOURCE: USSR. Gosudarstvennyy geologicheskii komitet, Osoboye konstruktorskoye byuro, Geofizicheskaya apparatura, no.27, 1966, 93-100

TOPIC TAGS: magnetometer, ~~magnetometer response~~, magnetic detection, ~~magnetic sensor~~

ABSTRACT: The main purpose of this paper is to develop a transfer operator and to find the impulse response of a ferromagnetic sensor magnetometer, as a substitute for the transfer function of a linear system. Under the assumption that the sensor is excited by a sinusoidal field, $H = H_m \sin \omega t$, sufficiently high to reach sensor saturation at the extremes, and that the signal acting on the sensor, H_x , is small, $H_x \ll H_m$, the voltage output of the sensor is written as

$$e = k (d/dt) (\mu H_x) \quad (1) \quad \text{where } k \text{ is a constant and } \mu = dB/dH \quad (2) \text{ is the dynamic permeability.}$$

The magnetometer block diagram is given in Fig. 1. By tracing the transformations of an input at a single given frequency, $x(t) = H_m \exp(j\omega t + \varphi) = H_m \exp(j\omega t) \quad (3) \text{ thru}$

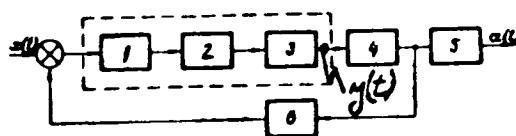
Card 1/2

L 33257-66

ACC NR: AT6012787

Fig. 1. Magnetometer block diagram.

1 - Ferrosounding sensor; 2 - selective amplifier; 3 - demodulator; 4 - correction circuits; 5 - mechanical part of display; 6 - feedback and elec. part of display



the blocks 1,2, and 3 of the system, the output is found in the form

$$y(t) = H \cdot W_e(\Omega) \exp(j\Omega t) \quad (4)$$

This shows that an output with a frequency $\omega = 2\pi\nu + \Omega$ at block #1 entrance creates an output with a frequency Ω at block #3 exit, and the input amplitude is multiplied by a coefficient, W_e , expressible by the system parameters. This response of the nonlinear system to one frequency is then utilized to obtain a relation between the input and output of the 1,2,3 -blocks combination subsystem (dashed area). (There is no distinct discussion of the validity of such superposition and cross-term irrelevance; however, the authors stress the fact that the analysis cannot yield a transfer function equivalent to the linear concept, Abstractor). By considering the feedback loop, the analysis is extended to the whole magnetometer system. The impulse response of the instrument is then obtained. Orig.art. has 2 figures, 21 formulas.

SUB CODE: 17/ SUBM DATE: 00/ ORIG REF: 002

Card 2/2

NASYROVA, L.I.; SAVRUKHIN, A.P.

Drift of meteor trails according to visual observations at
Ashkhabad in 1959 and 1960. Izv.AN Turk.SSR.Ser.fiz.-tekhn.,
khim.i geol.nauk no.3:27-31 '63. (MIRA 17:3)

1. Fiziko-tekhnicheskii institut AN Turkmenskoy SSR.

ACCESSION NR: AP4033419

S/0202/64/000/001/0121/0124

AUTHORS: Savrukhin, A. P.; Nasyrova, L. I.

TITLE: Drift of meteoric trains observed visually in Ashkabad, 1961

SOURCE: AN Turkmen SSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 1, 1964, 121-124

TOPIC TAGS: meteoric train, train drift, train height, drift velocity, drift direction, binocular TZK

ABSTRACT: Drifts of meteoric trains (observed by A. P. Savrukhin in August 1961) were studied in order to complete earlier investigations of winds at high altitudes. A binocular telescope TZK with an objective aperture of 80 mm and a field of vision of 8° was used. In all, 22 meteors were observed, 20 of them belonging to the Perseid stream. Data were processed by the method developed by A. P. Savrukhin (Izvestiya AN TSSR, seriya FTKhIGN, No. 1, str. 15, 1963). Over 70 drift vectors were calculated. Drift heights ranged from 91 to 108 km, their velocities from 0 to 132 m/sec, and their astronomic azimuths from 9 to 352°. The velocities of 75% lay within the range 0-60 m/sec, with a mean value of 34 m/sec. Smallest drift

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velocities were observed at the heights of 88-90 km, greatest at 96-99 km and at 83 km. Between 89 and 98 km the wind velocity gradient was $+3.5 \text{ m/sec} \cdot \text{km}$. One half of the trains moved due SE. At 90-100 km the drifting proceeded in all directions, but below 90 km only the southward, southwestward, and northeastward movements were observed. In these cases the directions were seen to change, and in one case the drift followed a circular arc. Orig. art. has: 3 tables and 2 diagrams.

ASSOCIATION: Otdel geofiziki i seysmologii AN Turkmeniskoy SSR (Department of Geophysics and Seismology, Academy of Sciences, Turkmen SSR)

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Card 2/2

PANOVA, V.Ye.; NASYROVA, M.D.

Radiometric determination of lead with the aid of Cr^{51} . Izv.vys.
ucheb.zav.;khim.i khim.tekh. 5 no.3:371-373 '62. (MIRA 15:7)

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(Lead--Analysis)

(Chromium--Isotopes)

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Systems having the liquid crystalline state. Part 3: Cholesteryl caprylate and cholesteryl caprylate. *Izv.vys.ucheb.zav.;khim. i khim.tekh.* 6 no.2:257-259 '63. (MIRA 16:9)

1. Ivanovskiy gosudarstvennyy, meditsinskiy institut i Institut kristallografii AN SSSR.
(Cholesterol esters) (Octanoic acid)

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Nonoxybensaltoluidine. Izv. vys. ucheb. zav.; khim. i khim.
tekh. 6 no.3:434-436 '63. (MIRA 16:8)

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(Liquid crystals) (Toluidine—Thermal properties)

3/081/61/000/019/019/085
B101/B147

AUTHORS: Strashnikov, N. S., Nasyrova, N. Z.
TITLE: Temperature dependence of emanation of minerals
PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1961, 84, abstract 19G19 (Sb. "Optika. Yadern. protsessy". Alma-Ata, 1959, 3-13)

TEXT: The authors studied the temperature dependence of the emanation of uranium black, uraninite, and zircon for Rn, Tn, An under different conditions of heating (20-1000°C, 3-60 min). As a rule, K_{en} rises with rising temperature, but maxima are observed at several intermediate temperatures. For uranium black, the maximum K_{Rn} lies at 200 and 650°C; for uraninite, the maximum K_{An} lies at 900°C; and for zircon, the maxima of K_{An} and K_{Tn} lie at 600°C. After repeated heating, these maxima do no longer appear, which is due to irreversible changes of the crystal lattice. Emanation of a preheated mineral at room temperature is only

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